

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-2. (Canceled)

3. (Currently amended) An image display device, comprising:

a liquid crystal panel for displaying an image including RGB colors;

a light source for emitting light toward the liquid crystal panel that the liquid crystal panel receives and uses for display operation thereof;

at least one optical sensor having a light receiving area corresponding to at least one pixel including R (red), G (green) and B (blue) dots, the optical sensor being arranged immediately above at least one color filter and thus over at least the R, G and B dots for measuring how the liquid crystal panel is emitting R, G, and B light, wherein the R, G and B light emitted by the liquid crystal panel are measured independently from one another by the at least one optical sensor;

a temperature sensor and a lamp temperature circuit for determining a temperature of the light source;

wherein light emission of the light source is controlled according to a measurement value obtained from the at least one optical sensor in order to correct brightness or chromaticity or both of the liquid crystal panel, and also based upon the temperature of the light source as determined by the temperature sensor and the lamp temperature circuit;

wherein a viewing angle of the optical sensor is limited and a measurement area of the optical sensor depends on the viewing angle; and

~~An image display device as claimed in claim 2,~~ wherein the measurement area of the optical sensor is within 10 degrees upward, downward, leftward, and rightward of a line perpendicular to the liquid crystal panel.

4. (Currently amended) An image display device as claimed in claim [[1]] 3, wherein the optical sensor has a light-sensing area at least equal to areas of one R, one G and one B dots added together.

5. (Currently amended) An image display device as claimed in claim [[1]] 3, wherein the brightness and/or chromaticity of the liquid crystal panel is corrected by controlling a driving voltage or driving current of the light source.

6. (Currently amended) An image display device as claimed in claim [[1]] 3, wherein the light source is part of a backlight provided at the back of the liquid crystal panel.

7. (Currently amended) An image display device as claimed in claim [[1]] 3, wherein the RGB image is displayed by receiving image data transmitted from a transmitting side.

8. (Currently amended) An image display device as claimed in claim [[1]] 3, further comprising:

a temperature sensor for measuring surface temperature of the light source,

wherein the driving voltage or driving current of the light source is controlled in such a way that the surface temperature of the light source is kept constant.

9. (*Original*) An image display device as claimed in claim 8, wherein the temperature sensor is a thermistor whose resistance varies with the surface temperature of the light source.

10. (*Currently amended*) An image display device comprising:

- a liquid crystal panel for displaying an image;
- a backlight for illuminating the liquid crystal panel from behind;
- an optical sensor having a light receiving area corresponding to at least one pixel including R (red), G (green) and B (blue) dots, the optical sensor being arranged immediately above at least one color filter and thus over at least the R, G and B dots, the sensor including first, second and third separate and distinct functions for measuring how the liquid crystal panel is emitting R (red), G (green), and B (blue) light, respectively, so that R, G and B light output from the liquid crystal panel is measured independently;
- a signal reading circuit for converting measurement values obtained from the optical sensor into a current brightness value of the liquid crystal panel;
- a brightness setting circuit for permitting entry of specified brightness of the liquid crystal panel;
- a converting circuit for converting an output of the brightness setting circuit into a specified brightness value of the liquid crystal panel;
- a calculator for calculating a difference between the current brightness value and the specified brightness value of the liquid crystal panel;
- a duty factor setting circuit for outputting a pulse signal whose duty factor depends on an output of the calculator; [[and]]

an inverter for producing a driving voltage and a driving current for the backlight according to the pulse signal,

wherein the brightness of the liquid crystal panel is corrected by controlling light emission of the backlight according to the measurement value obtained from the optical sensor, and

wherein the optical sensor is located immediately above at least one color filter and thus over at least the R, G and B dots, so that all light emitted from the R, G and B dots of the pixel is first collectively captured by the sensor and then from the different wavelength components thereof the R, G and B components are separately detected and measured independently.

11. (Previously presented) An image display device as claimed in claim 10, further comprising:

said signal reading circuit for converting measurement values obtained from the optical sensor into a current brightness value and a current chromaticity value of the liquid crystal panel;

a thermistor whose resistance varies with surface temperature of the backlight;

a temperature reading circuit for converting the resistance of the thermistor into a surface temperature value of the backlight; and

converting means for converting an output of the temperature reading circuit into a specified brightness value of the liquid crystal panel,

wherein brightness and chromaticity of the liquid crystal panel are corrected by controlling light emission of the backlight according to the measurement values obtained from the optical sensor in such a way that the surface temperature of the backlight is kept constant.

12. (Canceled)

13. (Currently amended) The image display device of claim [[1]] 3, wherein said optical sensor for measuring how the liquid crystal panel is emitting R, G, and B light is located directly on a face of the liquid crystal panel.

14. (Previously presented) The image display device of claim 10, wherein said optical sensor is located directly on a face of the liquid crystal panel.

15. (Currently amended) The image processing device of claim [[12]] 18, wherein said sensor is located directly on a face of the display panel.

16. (Currently amended) The image display device of claim [[1]] 3, further comprising duty factor setter means for setting a duty factor of a pulse signal in such a way that, when the difference between a current and a specified brightness values is negative, lamp current supplied to the light source is increased to eliminate the difference and, when the difference is positive, the lamp current is decreased to eliminate the difference.

17. (Currently amended) An image display device, comprising:
a liquid crystal panel for displaying an image including RGB colors;
a light source for emitting light toward the liquid crystal panel that the liquid crystal
panel receives and uses for display operation thereof;

at least one optical sensor having a light receiving area corresponding to at least one pixel including R (red), G (green) and B (blue) dots, the optical sensor being arranged immediately above at least one color filter and thus over at least the R, G and B dots for measuring how the liquid crystal panel is emitting R, G, and B light, wherein the R, G and B light emitted by the liquid crystal panel are measured independently from one another by the at least one optical sensor;

a temperature sensor and a lamp temperature circuit for determining a temperature of the light source;

wherein light emission of the light source is controlled according to a measurement value obtained from the at least one optical sensor in order to correct brightness or chromaticity or both of the liquid crystal panel, and also based upon the temperature of the light source as determined by the temperature sensor and the lamp temperature circuit; and

~~The image display device of claim 1,~~ wherein the optical sensor is located immediately above at least one color filter and thus over at least the R, G and B dots, so that all light emitted from the R, G and B dots of the pixel is first collectively captured by the sensor and then from the different wavelength components thereof the R, G and B components are separately detected and measured independently.

18. (Currently amended) An image processing device including a display panel and a light source that emits light that is received and used by the display panel to produce an image, comprising:

at least one sensor having a light receiving area corresponding to at least one pixel including R (red), G (green) and B (blue) dots, the optical sensor being arranged immediately

above at least one color filter and thus over at least the R, G and B dots for measuring how R, G and B light is emitted from the display panel, wherein R, G and B light emitted from the display panel are measured by the at least one sensor independently from one another;

wherein brightness or chromaticity or both of image(s) output from the display panel is corrected by controlling light emission of the light source according to a measurement value obtained from the at least one sensor; and

~~The device of claim 12,~~ wherein the optical sensor is located immediately above at least one color filter and thus over at least the R, G and B dots, so that all light emitted from the R, G and B dots of the pixel is first collectively captured by the sensor and then from the different wavelength components thereof the R, G and B components are separately detected and measured independently.